Northeastern University Marine Science Center Scope of Work: July 1, 2018 – June 30, 2019 as MassBays Metro Boston Regional Service Provider

The Massachusetts Bays National Estuary Program's Workplan for Federal Fiscal Year 2018 focuses on the following desired outcomes for the Bays:

- Sustainable National Estuary Program
- Improved habitat continuity and hydrology
- Resilient coastal habitat, including implementation of nature-based coastal protection measures
- Restored natural communities
- Improved water quality
- Robust interagency and interdisciplinary collaboration and partnerships
- Well-informed, multisector input to decisionmaking, including contributions from underserved communities.

These outcomes are based on the Goals, Strategies, and Outcomes approved by MassBays' Management Committee for its Comprehensive Conservation and Management Plan (CCMP).

The Northeastern University Marine Science Center (NUMSC) will implement the programs and projects below to contribute toward these overarching outcomes, utilizing approaches and partnerships specific to the Metro Boston region. NUMSC will employ a MassBays Metro Boston Regional Coordinator (RC) to convene and support the Boston Harbor Ecosystem Network (BHEN) as a Local Governance Committee, which in turn will serve as advisors to the RC's efforts in carrying out the work described here.

Workplan tasks

Outcome: Sustainable NEP

Task 1	Solicit and provide comments on Revised CCMP and Attachments	
Description/Objective	MassBays Central Staff will complete draft and final versions of the Revised CCMP (pdf and online), subject to timely review and approval by EPA	
NUMSC Actions	Deliverables	Timing (Q1-4)
Facilitate BHEN review of draft CCMP	BHEN meeting date, and attendee list.	Q1
Distribute announcement of availability and call for comments provided by Central Staff	List of audiences/networks contacted.	Q2
Provide input to Communications, Finance, and Monitoring Plans	Participate in at least one Subcommittee to the Management Committee tasked with preparing Attachments to the CCMP	Q1
Provide comments on CCMP to facilitate its long-term implementation in Metro Boston	Written comments submitted	Q2

Task 2	Reporting for EPA	
Description/Objectives	Reporting to MassBays Central Staff, engaging LGCs & regional stakeholders; promoting MassBays in local communities; attending staff and management committee/ subcommittee meetings; assisting the LGC with meetings and activities; and addressing requests for technical assistance or outreach.	
NUMSC Actions	Deliverable	Timing (Q1 - 4)
Maintain workflow according to scope of work	Reports and deliverables to MassBays central staff	monthly
Provide updates to MC	Quarterly reports to MassBays central staff, coinciding with MC meetings	Q1-4
Participate in MassBays MC and RC meetings	Attendance and participation in meetings	bimonthly
Participate on at least one MC Subcommittee	See Task 1	ongoing
Convene BHEN to review progress and proposed workplan	Proposed FFY2019 workplan	Q4
Represent MassBays in regional associations and societies	List of associations and societies where MassBays is represented	Q4
Promote MassBays in local community settings	List of presentations and publications	ongoing

Task 3	Provide region-specific education and outreach to inform and educate the public and stakeholders (all Regions)	
Description/Objectives	Communicate about Metro Boston-based activities to the public, including BHEN members and other partners, featuring MassBays' support. Project descriptions will be disseminated via multiple outlets, including presentations, newsletters, and websites. All references to funding will cite "Massachusetts Bays National Estuary Program" or "MassBays," and include relevant EPA grant number(s).	
CWA Core Program	Protecting coastal waters through the National Estuary Program	
Partners	LGCs, municipalities, and regional entities	
Actions	Deliverable	Timing (Q1 - 4)
Prepare and provide presentations, articles, etc.	List of publications and presentations by name, venue or publication, and date	Q4
Update NUMSC webpage references to MassBays as needed	Website urls	Q1
Provide regular reporting on progress under scope of work	Quarterly report for MC quarterly meetings	Q1-Q4

Outcome: Improved Habitat Continuity and Hydrology

Task 4	Tide Gate Management and Outreach	
Description/Objective	Conduct 1:1 municipal tide gate outreach in tandem with CZM regional coordinators and will participate in NSF-funded tide gate study with NU researchers, specifically around stakeholder engagement and outreach.	
NUMSC Actions	Deliverables	Timing (Q1 - 4)
Schedule and attend meetings with municipal staff	Presentation/tech transfer materials shared with municipalities, list of meetings.	Q1
Glean information from local contacts re: tide gate conditions and management	Updated information for Massachusetts tide gate inventory	Q2
Work with municipalities and partners to improve infrastructure and/or management of specific tide gates	New O&M plans for tide gates	Q3, Q4
Assess stakeholders views on Rumney Marsh tide gates	Stakeholder assessment matrix	Q2
1:1 meetings with key stakeholder agencies/orgs	1:1 meetings with key stakholder agencies/orgs	Q2,Q3,Q4
Planning for NSF-funded stakeholder workshop	Workshop agenda and overarching plan	Q4

Outcome: Resilient coastal habitat, including implementation of nature-based coastal protection measures

Task 5.	Support municipal and regional actions that promote resilient coastal habitats and communities through the use of nature-based solutions	
Task Description/Objective	Connect NU researchers and other experts to communities interested in living shoreline projects, participate in at least one site-specific project. Support and collaborate on potential living shoreline projects in metro Boston, becoming a key partner in at least one project	
Actions	Deliverables	Timing (Q1 - 4)
At least 3 waterfront site visits	Dates and locations of visits	Q1, Q2, Q4
Support efforts to conduct living shoreline projects	Letter of support for at least one proposal for design or implementation funding	Q3
Participate in at least one project	Article for MassBays e-newsletter re: project implementation	Q3-Q4

Outcome: Restored Natural Communities

Task 6.	Conduct sensitivity analysis of embayment clustering, incorporate residence times as available	
Description/Objective	Conduct additional analyses and prepare manuscript to be submitted to a peer reviewed journal	
NUMSC Actions	Deliverables	Timing (Q1 - 4)
Run sensitivity analyses to confirm embayment clustering into types as discussed with STAC in June 2018 meeting	updated figures and tables to produce EDA 2.1	Q1. Q2
Prepare manuscript for publication	Manuscript submitted to appropriate journal	Q2-Q4

Task 7.	Explore causes of drastic decline of softshell clams in Harbor	n Boston
Task Description/Objective	Pending MET funding, assist researchers in making contact with local shellfish wardens and DMF officials to guide design and site selection for softshell clam study; facilitate dissemination workshop to inform stakeholders about the study and early results.	
Actions	Deliverables	Timing (Q1 - 4)
Meetings with DMF, local shellfish wardens	Approved sampling protocol	Q1,Q2
Implement sampling & experiments	Summary of program and findings	Q4

Outcome: Robust Interagency and Interdisciplinary Collaboration and Partnerships

Task 8.	Represent MassBays on relevant networks	
Description/Objective	Convene and provide input to existing working groups on topics relevant to MassBays' desired outcomes	
NUMSC Actions	Deliverables	Timing (Q1 - 4)
MAPC Metro Mayors Climate Task Force, the Boston Harbor Protection Study Steering Committee, and other networks conducting work relevant to and/or with the potential to advance CCMP implementation	List of networks, outcomes	Q4

Outcome: Well-informed, multisector input to decisionmaking

Task 9	Expand the audience for MassBays' work in Metro Boston	
Description/Objective	Engage diverse learners in watershed and coastal science education, bring new audiences to MassBays' mission	
NUMSC Actions	Deliverable	Timing (Q1 - 4)
Present the Boston Harbor Habitat Atlas to a variety of constituents to elicit feedback	List of at least 6 groups reached, comment themes compiled.	Q3
For all outreach efforts, facilitate new participation by underserved communities	List of accommodations made, sample notices to new audiences	Q1 - Q4
Assist in organizing and hosting the 2018 Ocean Literacy Summit, to be held at UMass Boston (CS, MB)	Summit agenda, new subscribers to MassBays e- newsletter	Q2
Host Metro Boston High School Marine Science Symposium	Participants' evaluation summary	Q4
Scope the possibility of a second Symposium (first was in 2017) with potential partners	Planning group convened, date and venue set	Q3
Host lecture series	List of speakers, new subscribers to MassBays e- newsletter	Q1-Q4